

Remarks:

The above amendments and these remarks are responsive to the Office action dated August 15, 2006. Claims 1-42 are pending in the application. Claim 21 is being cancelled herein. Claims 33-42 have been withdrawn.

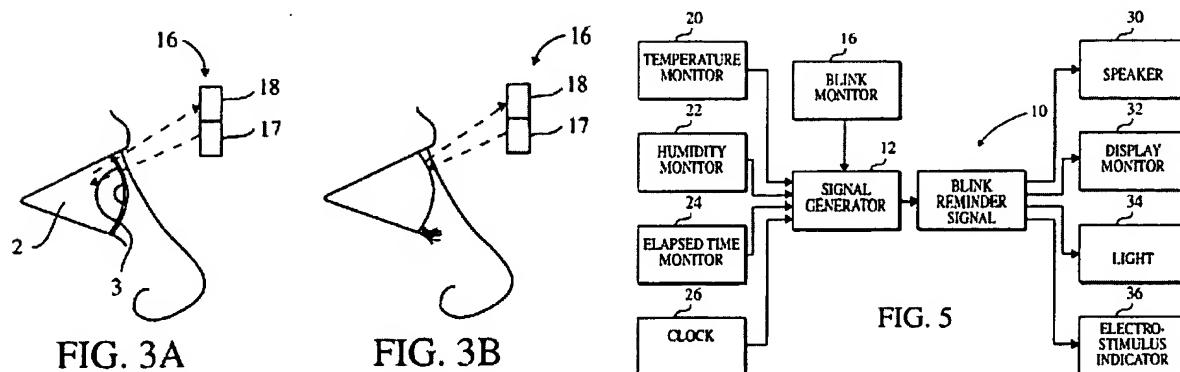
In the Office action, claims 1-4, 6, 17, 18, 20, 21, 28 and 30-32 have been provisionally rejected under the nonstatutory doctrine of obviousness-type double patenting over claims 2-50 of copending U.S. Patent Application Serial No. 10/412,057. Claims 9-16 and 22 stand rejected under the nonstatutory doctrine of obviousness-type double patenting over claims 2-50 of copending U.S. Patent Application Serial No. 10/412,057 in view of U.S. Patent No. 5,368,582 to Bertera ("Bertera").

In addition, claims 1-6, 8-10, 14-16, 18-23 and 28-31 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,270,467 to Yee ("Yee"). Moreover, claims 11-13, 17 and 32 stand rejected under 35 U.S.C. § 103(a) as being obvious over Yee in view of Bertera. Claim 7 stands rejected under 35 U.S.C. § 103(a) as obvious over Yee in view of U.S. Patent No. 6,299,305 to Miwa ("Miwa"). Finally, claims 24-27 stand rejected under 35 U.S.C. § 103(a) as obvious over Yee in view of U.S. Patent No. 6,159,186 to Wickham et al. (hereinafter "Wickham").

In view of the amendments above, and the remarks below, applicants respectfully request reconsideration of the application under 37 C.F.R. § 1.111 and allowance of the pending claims.

Rejections under 35 U.S.C. § 102

Applicants respectfully disagree that Yee anticipates claims 1-6, 8-10, 14-16, 18-23 and 28-31 under 35 U.S.C. § 102(b) because the reference fails to disclose each feature recited in the claims. Nevertheless, to further prosecution of the application, certain claims have been amended for clarity.



With reference generally above to Figs. 3A, 3B and 5 of Yee, it will be noted that Yee discloses a device directed to maintaining a proper tear film on the surface of a user's eye, such as when a user is viewing a computer display. The device monitors how frequently a user is blinking and encourages a user to blink if he is not blinking frequently enough to maintain the proper tear film. The device encourages blinking through blink reminder signals, such as audible signals, visual signals, or electrostimulus signals. Blinking frequency is monitored by detecting the intensity of light reflecting from a user's eye such as indicated in Figs 3A and 3B. When the user's eyelid covers his eye during a blink, the intensity of reflected light changes and thus signals a blink.

Claims 1-6, 8-10, 14-16, 18 and 19

Applicants submit that Yee fails to disclose each feature recited in claim 1. Claim 1 recites:

An ophthalmic apparatus comprising:
an eye-positioning device for assisting a subject in positioning an eye in a desired position for administering a fluid to the eye; and
an applicator for dispensing the fluid into the eye when the eye is in the desired position.

Yee does not disclose an eye-positioning device for assisting a subject in positioning an eye, but rather discloses a device for encouraging a user to blink at a certain frequency. The Examiner suggests that opening and closing of an eyelid corresponds to positioning of an eye. Applicants respectfully disagree. Blinking does not dictate an eye position. Blinking merely involves movement of an eyelid over an eye. Accordingly, Yee does not disclose any device for assisting a subject in positioning an eye as recited in claim 1.

Correspondingly, Yee fails to disclose positioning an eye in a desired position for administering a fluid to the eye. Although Yee proposes propelling a fluid onto a user's eye (or in the vicinity of the user's eye) "to increase the moisture in the enclosed area 42 and reduce the effects of evaporation from the eye" (Col. 13, In. 41-2), Yee does **not** even consider placement of the eye to receive such fluid, and does **not** disclose a device for positioning the eye into a desired position. In fact, Yee makes no mention of eye position at all.

Further, the purpose of propelling fluid onto the user's eye (or in the vicinity of the user's eye) in Yee is to increase the moisture in the area of the eye, which helps reduce

evaporation of the tear film on an eye. This purpose is accomplished regardless of the position of the eye. Accordingly, the position of an eye is irrelevant to Yee.

Furthermore, contrary to the Examiner's characterization, monitor (6) in Yee is not configured to position an eye in a desired position for administering a fluid. The Examiner indicates that monitor (6) could be used to draw a patient's focus, but applicants note that Yee does not disclose using the monitor (6) in this manner, much less disclose using it to position an eye in a desired position for administering a fluid. Rather, in Yee, the monitor displays the computer documents the user is working on, in addition to providing visual blink reminders on a portion of the screen. The user's focus is on his/her documents. The blink reminder is merely a cue to encourage blinking, and does not function to position the eye.

Yee also does not disclose an applicator for dispensing fluid into the eye when the eye is in a desired position. Yee discloses a pump member (75) for delivering fluid to a user's eye or to the area surrounding the user's eye. However, pump member (75) is controlled to maintain certain desired environment conditions. Thus, pump member (75) activates when the humidity in the enclosed area drops below a specified threshold, **not** when a user's eye is in a desired position. Accordingly, Yee does not disclose the applicator for dispensing fluid into the eye when the eye is in a desired position as recited in claim 1.

For at least the foregoing reasons, applicants submit that Yee does not disclose each feature recited in claim 1. Accordingly, Applicants submit that Yee does not anticipate claim 1, and respectfully request that the rejection under 35 U.S.C. § 102(b)

based on Yee be withdrawn. Because claims 2-6, 8-10, 14-16, 18 and 19 depend from claim 1, it follows that Yee does not anticipate those claims either. Applicants, therefore, respectfully submit that the rejection of claims 1-6, 8-10, 14-16, 18 and 19 under 35 U.S.C. § 102(b) based on Yee also should be withdrawn.

Claim 2 is also distinguishable from Yee because Yee does not disclose an eye-position detector as recited in claim 2. Yee describes a blink monitor (16) which "monitors the frequency of the computer user's blinks, the time between blinks, the time since last blink, and the like." (Col 7, ln 46-48). Monitoring blink frequency and time intervals between blinks is not equivalent to detecting the position of an eye. Accordingly, blink monitor (16) does not correspond to the eye-position detector recited in claim 2.

Moreover, Yee does not disclose a feedback mechanism for "providing feedback information to the subject so that the subject can move the eye to the desired position", as recited in claim 2. In fact, as noted above, Yee fails even to consider eye position information, as such information is irrelevant to Yee.

Claim 6 is further distinguished because Yee does not disclose the recited image pick-up device, or the image processor. Yee discloses a phototransister 18 which "measures the intensity of the reflected light and, thereby, detects computer user blinks." (Col. 8, ln. 14-15). A phototransister measuring the intensity of reflected light requires significantly less detail and precision than an image pick-up device that captures an image of an eye. Light intensity reflected off of an object is a coarse measurement compared to the refinement used to capture an image of an object.

Indeed, the controller in Yee determines only if light intensity has altered sufficiently to signify a blink, it is not an image processor that processes the captured image of eye to determine if the eye is in a desired position. The Yee controller and phototransistor need not capture and process actual images of an eye to achieve their intended purpose, and Yee does not disclose that such elements are capable of functioning as the image pick-up device and image processor recited in claim 6.

Claim 8 is further distinguished because Yee does not disclose a feedback device operable to output feedback signals corresponding to directions for moving an eye to a desired position. Yee encourages a user to blink by issuing various blink signals, none of which include directions for moving the eye.

Claims 20-23 and 28-31

Applicants submit that Yee does not disclose each feature recited in amended claim 20. As amended, claim 20 recites:

An ophthalmic apparatus, comprising:
a dispensing apparatus for dispensing fluid into an eye of a subject;
an eye-position detector for detecting the current position of the eye relative to the dispensing apparatus; and
a feedback device for providing feedback information that assists the subject in moving the eye from the current position to a predetermined position relative to the dispensing apparatus for administering a fluid to the eye.

As noted above, Yee does not disclose an eye-position detector, but rather, discloses a blink monitor for detecting when a computer user blinks. Blinking relates to the motion of an eyelid relative to an eye. Yee does not consider the position of the eye itself, nor is the position of the eye relevant to Yee. Yee seeks only to maintain a proper tear film by encouraging a user to blink and/or maintaining a desired temperature and humidity level in an area surrounding the user's eye.

Yee does not disclose an eye-position detector for detecting the current position of an eye relative to a dispensing apparatus. Yee also does not disclose a feedback device that assists in moving the eye from the current position to a predetermined position relative to the dispensing apparatus so that fluid may be administered to the eye. Yee discloses blink reminder signals, which encourage a user to blink. Eye position is irrelevant to Yee, and as such there is no reason to assist a subject in moving an eye from a current position to a predetermined position based on the teachings of Yee.

For at least these reasons, Yee fails to disclose each feature recited in claim 20. Accordingly, it is submitted that claim 20 is not anticipated by Yee under 35 U.S.C. § 102(b), and that the rejection of claim 20 under 35 U.S.C. § 102(b) based on Yee should be withdrawn. Claim 21 has been cancelled without prejudice. Claims 22 and 23 depend from claim 20, and thus are allowable over Yee for at least the same reasons as claim 20.

Claim 23 is also distinguishable because Yee does not disclose an image-capturing device and a processor as recited therein. Claim 23 recites an image-capturing device for capturing an image of an eye. Yee discloses a phototransistor for measuring the intensity of reflected light. The controller described in Yee does not process an image to determine a current position of an eye, but rather counts the number of blinks made by a user and calculates time between blinks. Image capturing and image processing are not disclosed in Yee and, therefore, the reference does not disclose the image-capturing device nor the processor recited in claim 23.

Claims 28-31

Yee fails to disclose each feature recited in claim 28 as is necessary to anticipate it under 35 U.S.C. § 102(b). Claim 28 recites:

An ophthalmic apparatus for administering a liquid to an eye of a subject, comprising:

detecting means for detecting the position of the eye; and

dispensing means for dispensing the liquid into the eye when the eye is in a predetermined position.

Yee does not disclose detecting means for detecting the position of an eye.

Rather, Yee discloses a blink monitor for detecting blinks, i.e., for detecting when an eyelid covers an eye.

Moreover, Yee does not disclose dispensing means for dispensing a liquid into an eye when the eye is in a predetermined position. In fact, eye position is irrelevant to operation of Yee. The position of the eye in Yee has no effect on operation.

Accordingly, it is submitted that Yee fails to disclose each feature recited in claim 28, and the rejection of claim 28 under 35 U.S.C. § 102(b) based on Yee should be withdrawn. Claims 29-31 depend from claim 28, and thus are allowable for at least the same reasons as claim 28.

Claim 29 also is distinguishable for reasons beyond those discussed in connection with claim 28. For example, Yee does not disclose means for capturing an image of an eye. Yee discloses only a phototransistor for detecting changes in light intensity. There is no teaching, or even suggestion of image capture in Yee. Further, Yee does not disclose processing means for detecting the position of an eye. Yee discloses a blink monitor that detects when a user blinks his/her eyelid.

Claim 30 is likewise allowable for reasons beyond those discussed in connection with claim 28. Yee discloses providing signals to encourage a user to blink, **not** providing feedback to a subject to assist him in moving an eye to a predetermined position, as recited in claim 30. Further, Yee does **not** provide feedback if the eye is not in a predetermined position. Yee only encourages blinking if a user's blink frequency is below a certain level.

Claim 31 includes recitation of a feedback device operable to provide feedback signals to assist the subject in moving an eye to a predetermined position. Yee does not disclose assisting a user in moving an eye to a predetermined position.

Rejections under 35 U.S.C. § 103

Applicants submit that the various cited references in combination do not establish a *prima facie* case that the claims rejected under 35 U.S.C. § 103(a) are obvious.

Claims 11-13, 17 and 32

Yee combined with Bertera does not disclose each feature recited in claims 11-13, 17 and 32. The Examiner acknowledges that Yee does not disclose a dispenser comprising a jet dispenser, a piezoelectric jet dispenser, or a thermal droplet jet dispenser, and cites Bertera for such disclosure. However, assuming *arguendo* that Bertera did disclose these features, it is submitted that the cited combination still fails to disclose each feature recited in claim 1 (from which claims 11-13 depend), and claim 20 (from which claims 17 and 32 depend).

For example, the combination of the references fails to disclose an eye-positioning device for assisting a subject in positioning an eye. Further, the combination does not disclose an applicator that dispenses fluid when an eye is in a desired position. Moreover, combining Yee and Bertera does not disclose an eye-position detector that detects the current position of an eye relative to a dispensing apparatus. In addition, the combination does not disclose a feedback device that assists a subject in moving an eye to a predetermined position relative to a dispensing apparatus.

Accordingly, it is submitted that combining Yee and Bertera does not disclose each feature recited in claims 11-13, 17 and 32, as is necessary to establish a *prima facie* case that such claims are obvious under 35 U.S.C. § 103(a) based on Yee and Bertera.

Claim 7

Combining Yee with Miwa does not disclose each feature of claim 7. The Examiner acknowledges that Yee does not disclose a CCD camera and cites Miwa for the disclosure of a CCD camera. However, combining Miwa with Yee still fails to disclose each feature recited in claim 1, from which claim 7 depends. For example, the combination does not disclose an eye-positioning device for assisting a subject in positioning an eye, and does not disclose an applicator that dispenses fluid when an eye is in a desired position. Therefore, combining Yee with Miwa does not disclose each feature of claim 7, as is necessary to establish a *prima facie* case that claim 7 is obvious under 35 U.S.C. § 103(a).

Claims 24-27

Combining Yee with Wickham does not establish that claims 24-27 are *prima facie* obvious under 35 U.S.C. § 103(a) because the references in combination fail to disclose each feature recited in the claims. The Examiner acknowledges that Yee does not disclose the subject matter recited in claims 24-27 and relies on Wickham for such disclosure. However, the combination does not disclose each feature of claim 20, from which claims 24-27 depend. Wickham discloses an infusion delivery system directed to intravenous administration sets, and does not include disclosure directed to ophthalmic apparatuses as recited in claim 20.

For example, combining the references does not disclose an eye-position detector for detecting a current position of an eye relative to a dispensing apparatus. Furthermore, neither Yee nor Wickham discloses detecting the position of an eye. Further, combining Yee with Wickham does not disclose a feedback device that assists a subject in moving an eye to a predetermined position relative to a dispensing apparatus.

Thus, combining Yee and Wickham does not disclose each feature recited in claims 24-27, as is necessary to establish that claims 24-27 are *prima facie* obvious under 35 U.S.C. § 103(a).

Double Patenting Provisional Rejections

Applicants respectfully traverse the provisional double patenting rejections issued by the Examiner. Specifically, applicants submit that claims 1-4, 6, 17, 18, 20, 21, 28 and 30-32 are patentably distinct from the subject matter recited in claims 2-50 of U.S. Patent Application Publication No. 2004/0204674 (the '057 application). Further, applicants submit that claims 9-16 and 22 are patentably distinct from claims 2-50 of the '057 application in view of Bertera.

Claims 2-50 of the '057 application are generally directed to a device for administering material to an eye that includes a detector configured to detect when a user blinks. In contrast, the ophthalmic apparatus recited in claim 1 recites an eye-positioning device for assisting a subject to position an eye. The position of an eye and whether a user has blinked are distinct parameters. An eye position generally describes the position of an eye in an eye socket; whereas a blink describes motion of an eyelid over the eye. Devices directed to detecting blinking and apparatuses for positioning an eye are patentably distinct because different mechanisms are used and different purposes are achieved. Mechanisms that detect whether a user has blinked do not indicate the position of an eye. Thus, it is submitted that the rejected claims are patentably distinct from claims 2-50 of the '057 application.

Similarly, claims 9-16 and 22 are patentably distinct from claims 2-50 of the '057 application in view of Bertera. The Examiner acknowledges that the claims of the '057 application do not recite spectacle style frames and cites Bertera for disclosure of such frames. However, claims 9-16 and 22 are still patentably distinct from the combination

of Bertera with claims 2-50 of the '057 application, despite Bertera's cited disclosure of spectacle style frames. Among other features, applicants' claims 9-16 recite an eye-positioning device, and claim 20 recites an eye-position detector. Claims 2-50 of the '057 application generally describe a device that includes a blink detector. A blink detector that detects when a user blinks is not an eye-positioning device or an eye-position detector because the position of an eye is different than the position of the eyelid over an eye. The Examiner does not assert that Bertera discloses an eye-position device or detector, and in fact, the reference discloses neither. Thus, applicants' claims 9-16 and 22 are patentably distinct from claims 2-50 of the '057 application in view of Bertera.

Furthermore, the Examiner's reference to Bertera seems necessary to support this double-patenting rejection. The proposed combination actually suggests a rejection under 35 U.S.C. § 103(a). Applicants note, however, that the '057 application is commonly owned with the present application, and thus is unavailable under 35 U.S.C. § 103(c). The Examiner's double patenting rejection of claims 9-16 and 22 thus should be withdrawn for this additional reason.

Thus, applicants submit that all of the provisional double patenting rejections issued for this application can be overcome through traverse, without the need for a terminal disclaimer.

Applicants submit that this application is now in a condition suitable for allowance, in view of the above amendments and remarks. Accordingly, applicants respectfully request that the Examiner issue a Notice of Allowability covering the pending claims. If the Examiner has any questions, or if a telephone interview would in any way advance prosecution of the application, please contact the undersigned attorney of record.

Respectfully submitted,

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